

Claims:

1. A tool for use in a wellbore, comprising:
a tubular housing having a bore therethrough and at least one flow port disposed through a wall thereof;
a sleeve slidably mounted within the housing, wherein the sleeve has a bore therethrough and at least one flow slot disposed through a wall thereof, the at least one slot selectively alignable with the at least one flow port; and
a seal assembly disposed between the housing and the sleeve, wherein the seal assembly is configured so that a first portion of the seal assembly protects a second portion of the seal assembly from substantial damage during actuation of the tool.
2. The tool of claim 1, wherein the length of the seal assembly substantially corresponds to the length of the sleeve flow slot.
3. The tool of claim 1, wherein the seal assembly comprises a center adapter.
4. The tool of claim 3, wherein the length of the center adapter substantially corresponds to the length of the sleeve flow slot.
5. The tool of claim 3, further comprising at least one protrusion disposed around the center adapter.
6. The tool of claim 3, wherein the center adapter comprises at least one protrusion disposed around both an inner side and an outer side thereof.
7. The tool of claim 3, wherein the center adapter comprises a plurality of protrusions disposed around both an inner side and an outer side thereof.
8. The tool of claim 3, wherein the seal assembly further comprises:

a first end adapter;
a second end adapter, wherein the center adapter is disposed between the two end adapters;
at least one first sealing element disposed between the first end adapter and the center adapter; and
at least one second sealing element disposed between the second end adapter and the center adapter.

9. The tool of claim 8, further comprising at least one protrusion disposed around the first end adapter.

10. The tool of claim 1, further comprising at least one equalization slot disposed through a wall of the sleeve, wherein the equalization slot is substantially smaller than the flow slot.

11. The tool of claim 10, further comprising a means for selectively retaining the sleeve among a closed, an open, and an equalization position.

12. The tool of claim 1, wherein the housing further comprises an upper housing and a lower housing threadingly coupled together and one of the housings comprises a lip and the other housing comprises a tapered surface so that when the housings are coupled the lip mates with the tapered surface to form a seal.

13. A seal assembly for use in a wellbore tool, comprising:
a first end adapter;
a second end adapter;
a center adapter disposed between the two end adapters;
at least one first sealing element disposed between the first end adapter and the center adapter; and

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at least one second sealing element disposed between the second end adapter and the center adapter, wherein the length of the seal assembly substantially corresponds to a length of a sleeve flow slot of the wellbore tool.

14. The seal assembly of claim 13, wherein a protrusion is disposed around the center adapter.

15. The seal assembly of claim 14, wherein the protrusion is a plurality of protrusions.

16. The seal assembly of claim 13, wherein the adapters are constructed from a relatively hard material and the sealing members are constructed from a relatively soft material.

17. The seal assembly of claim 13, wherein the adapters are constructed of a material selected from a group consisting of a thermoplastic polymer and metal.

18. The seal assembly of claim 13, wherein the sealing elements are constructed of a material selected from a group consisting of an elastomer and a thermoplastic polymer.

19. The seal assembly of claim 13, wherein the sealing members are substantially Chevron-shaped.

20. A tool for use in a wellbore, comprising:

a tubular housing having a bore therethrough and at least one flow port disposed through a wall thereof;

a sleeve slidably mounted within the housing, wherein the sleeve has a bore therethrough and at least one flow slot disposed through a wall thereof, the at least one slot selectively alignable with the at least one flow port; and

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a seal assembly comprising a center adapter, wherein the center adapter includes a structure configured for limiting fluid flow across the seal assembly during actuation of the tool.

21. A method of using a wellbore tool in a pressurized wellbore, comprising:
providing the wellbore tool, wherein the tool comprises:

a tubular housing having a bore therethrough and at least one flow port disposed through a wall thereof;

a sleeve slidably mounted within the housing, wherein the sleeve has a bore therethrough and at least one flow slot disposed through a wall thereof;
and

a seal assembly disposed between the housing and the sleeve;
running the wellbore tool into a pressurized wellbore; and

sliding the sleeve over the seal assembly, wherein a first portion of the seal assembly will restrict flow of pressurized fluid to a second portion of the seal assembly so that the second portion is not substantially damaged during sliding of the sleeve.

22. A method of using a wellbore tool in a pressurized wellbore, comprising:
providing the wellbore tool, wherein the tool comprises:

a tubular housing having a bore therethrough and at least one flow port disposed through a wall thereof;

a sleeve slidably mounted within the housing, wherein the sleeve has a bore therethrough and at least one flow slot disposed through a wall thereof, the at least one slot selectively alignable with the at least one flow port; and

a seal assembly comprising a center adapter, wherein the center adapter includes a structure;

running the wellbore tool into a pressurized wellbore; and

sliding the sleeve over the seal assembly, wherein the structure of the center adapter will limit fluid flow across the seal assembly so that the seal assembly is not substantially damaged during sliding of the sleeve.